Capacity Development

West Virginia has 1,093 public water systems consists of: 497 CWSs, 130 NTNCWSs, and 466 TNCWSs serving about 1.6 million people.

WVDHHR continues to successfully implement its Capacity Development Program (CDP).

New Systems

WVDHHR maintains a list that tracks the compliance status of new systems that started operation during the previous three fiscal years (October 1, 2009 through September 30, 2012).

Twelve systems started operation within the last three years (seven within the last year). But one system closed so there are only 11 new systems. The only system (Brooks Run Mining, WV9955101) that had an ETT score of above 10 last year returned to compliance early in FY2012. This success in operational compliance can be attributed to the diligence of the District Engineers and enforcement staff in working with these new systems to ensure that they understand the reporting and sampling requirements.

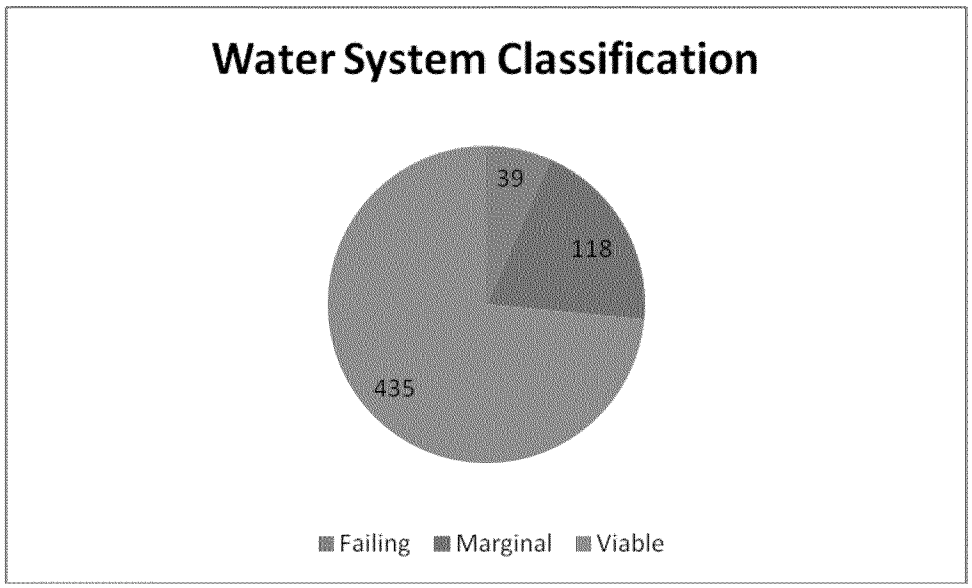
The State has been discovering systems which started without the State's knowledge and approval. The State is pursuing those systems to comply with state requirements and probably legal action!

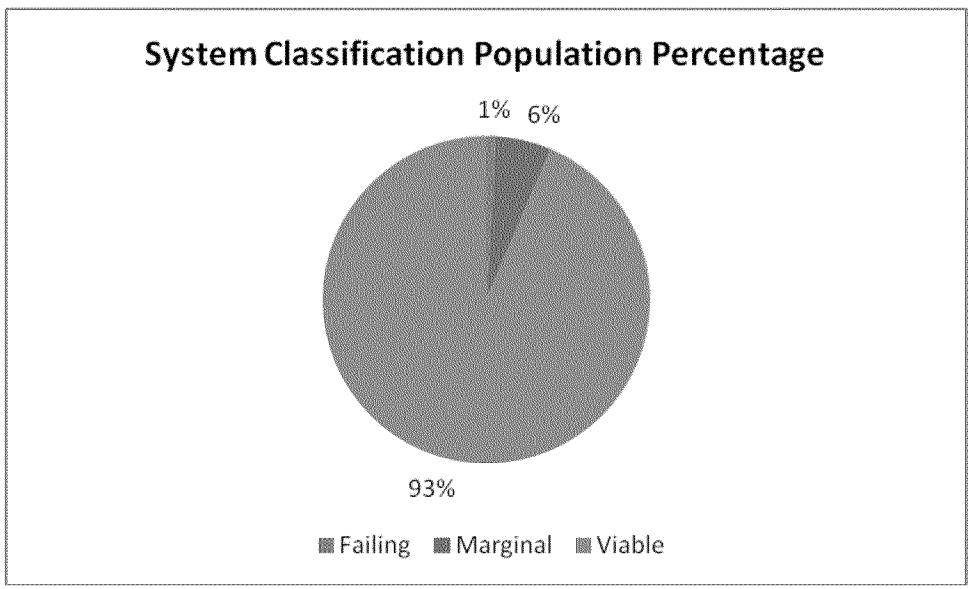
The new systems permitting process is discouraging small, new water systems and encouraging proposed systems to connect to or to become part of existing, larger, more viable water systems. Through this process, new systems commonly begin to understand how complex running a water system is and partner with or connect to an existing, more viable system when possible. This is effective in preventing the formation of non-viable PWSs.

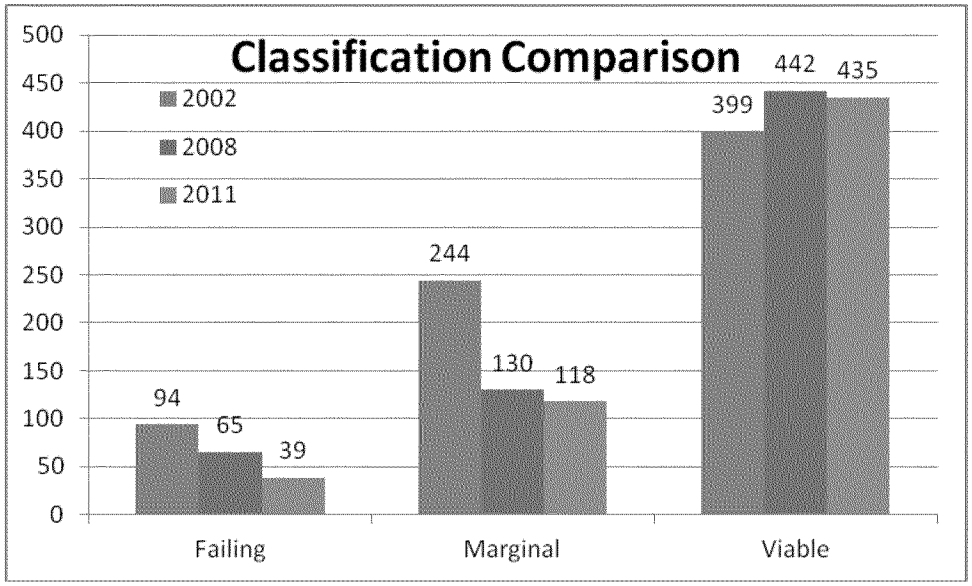
Existing Systems

Since its initial baseline conducted in 2002, WVDHHR has provided an update every three (3) years to help evaluate the CDP. The most recent update was in 2011. The data which are used to measure improvement in system capacity showed that existing system's assessment activities were having a positive impact on water systems.

The 2011 baseline ranking data showed that 435 (73%) of the community and NTNC water systems in West Virginia are viable systems; leaving 118 (20%) that are marginal and 39 (7%) that are failing. Viable water systems serve 1.4 million (94%) of the population while failing and marginal systems serve 96,497 (or 6%) of the population. The figures below show the improvement in systems' capacity.







WVDHHR continues to provide assistance to water systems by conducting Capacity Development Assessments (CDA) - a complete evaluation of their technical, managerial, and financial (TMF) capabilities and needs. WVDHHR provides recommendations to address those needs which will lead to long term viability. The CDP continues to focus on making the reports more "reader friendly" and helpful to the water systems.

In FY2006, WV started shifting resources within its program to provide more pro-active water system assistance and have one staff person focused completely on assessment follow-up and assistance. In FY2010, WV started providing more pro-active follow-up assistance and adopted a follow-up timeframes of: 30, 60, 90, 180, and 360 days to monitor system compliance with recommendations identified in the Capacity Development Assessments (CDA) provided. WV is intended to have its entire staff involved in follow-ups to provide more effective assistance to water systems and to minimize, as much as possible, disruptions in assistance caused by personnel changes. During FY2012, 29 additional water systems were assessed. Some assessments included multiple water systems having separate PWSID numbers, although, they were counted as one CDA.

Additional assistance provided by WVDHHR to water systems through field staff and the Capacity Development Team include a variety of activities related to the Area Wide Optimization Program, the Consumer Confidence Report, asset management, emergency response plans, Disinfection Byproduct Rule, etc.

Highlight

The Capacity Development staff made extraordinary efforts in working with systems that were historically poor performers; those having failing baseline scores and a history of non-compliance to help them achieve viability. Staff made frequent phone calls to the systems, showed up onsite, or attended meetings of the residents, etc. The CDP staff work diligently to

assist those struggling systems including aligning them with other more viable systems for merger.

WVDHHR has continued with its Capacity Assistance Partnership Developing Essential Viability (CAPDEV) outreach initiative. The CAPDEV outreach initiative was created to provide TMF assistance to drinking water systems staff. CAPDEV is the second phase of the CDP; the first phase is the CDA. Through CAPDEV, West Virginia is encouraging water system cooperation, personnel and/or equipment sharing agreements, and full or partial consolidation.

In FY2011 one employee started providing asset management plan (including the Check Up Program for Small Systems - CUPSS) guidance and asset management plan review for water systems. Participation in this process was enhanced by DWTRF bond requirements which require an Asset Management Program be established within six (6) months of substantial completion. West Virginia requires all DWSRF recipients to participate in a 14-month program to guide them through asset management development. A 14 month timeline has been developed to help systems develop their plans in manageable chunks and review of plan components are occurring as various plan components are developed during the 14 months.

- The CDP continues to actively market the importance of establishing an Asset Management Program and provide training on Asset Management at events attended by water systems personnel.
- A consultant (TetraTech) was hired to provide more detailed guidance to water systems during monthly webinars.
- As of September 30, 2012, 26 systems were participating in that training. Training is also provided at events attended by water system personnel.
- Funding is also being made available to water systems to secure the services of engineering firms to assist with the asset management plan development.

In addition to direct contact while conducting CDAs and follow-up assistance activities, CDP staff provides training to water system operators by teaching various courses. During FY2012, 324 water operators were trained and 1,395 operators were certified. Additionally, 122 people were trained on backflow prevention and 161 were certified. And 183 people were certified as water well drillers and 68 people were certified as pump installers.

Third party assistance providers assist water systems through on-site, hands-on assistance; workshops; seminars and training sessions; and self-help guidance documents.

The CDP progress is continuously being evaluated using a list of parameters. During the last re-assessment, the following were noticed:

- An increase in the number of viable systems from 399 systems in 2002 to 435 in 2011,
- A decrease in the number of failing systems from 94 systems in 2002 to 39 in 2011, and
- The number of marginal systems has decreased from 244 systems in 2002 to 118 systems in 2008.

WVDHHR submitted to their Governor a report on the efficacy of the Capacity Development Program and progress made toward improving the TMF capacity of public water systems in West Virginia. The report was submitted by the due date (September 30, 2011) and was made available to the public. An article on the CDP's achievements was published.

WVDHHR developed partnership with other Drinking Water Education and Training Coalition members (WV Rural Water Association, WV Rural Community Assistance Program, National Drinking Water Clearing House, Public Service Commission of WV, WV chapter of the American Water Works Association, and WV Environmental Training Center) and developed a comprehensive annual training calendar. More than 3,000 calendars were printed and distributed to water operators, board members, system managers, and others concerned with operator certification and training. The calendar is used to keep water system personnel informed of important drinking water education and training opportunities. Instead of reviewing multiple calendars for training options, the new consolidated calendar will allow operators to review training options from a single source.

In FY2012, CDP staff continued to work with the National Environmental Services Center (NESC) in developing, with CDP oversight and review, two important water system assistance tools/programs using sub-recipient grant funds. These tools/programs are:

- ***West Virginia Water System Utility Management Institute Training (WVWSUMIT):***
  The comprehensive training curriculum for water system managers consists of six individual courses that are designed to last from one to three days each. The training material is based on the Kentucky Utility Management Institute curriculum, which was developed by the Kentucky Rural Water Association and Western Kentucky University. The Kentucky materials have been modified to meet the specific needs of West Virginia's water systems and updated to address new regulations and contemporary management issues. They were also updated electronically to make the material easier to modify and update in the future and to convert the visual medium from overhead transparencies to PowerPoint slides.

- ***West Virginia Water System Evaluation Tool (WVWSET):***
  The West Virginia Water System Evaluation Tool (WVWSET) will enable water systems to self-assess their water system's technical, managerial, and financial capabilities. The end-users of the tool will have a better understanding of the challenges affecting sustainable practices and can begin to address deficiencies. This tool provides instant feedback to the participants and also provides a list of resources for additional information on specific topics as well as a detailed list of assistance providers. The tool is being used, under contract with OEHS, by a third party assistance organization that is helping water systems to complete the self-assessment during on-site visits. The vendor for this project was secured in June of 2011 and program implementation began immediately with meetings between OEHS and the vendor to establish timetables, deliverables, etc. The vendor was asked to concentrate their efforts on those systems that did not complete the self-assessment during the Baseline process. September 2011 was the first month that the vendor implemented field work with the water systems; completing 6 surveys with water systems during that first month.

System Compliance Tracking Through ETT

West Virginia started utilizing the Enforcement Targeting Tool (ETT) to target compliance assistance to those systems with an elevated ETT score. The EPA requires that OEHS take action on systems with an ETT score ≥11. WV started to target those systems that have not yet reached the actionable score assigned by EPA. The Compliance and Enforcement (C&E) staff is pushing systems that are on the cusp of reaching the action level (those with an ETT score >8) to begin proactive measures that will remedy violations and lower their ETT score.

Starting in FY 2012, with input from the district engineers, the C&E staff are now working hand in hand with CDP staff to identify by both the ETT score (≥11) and the baseline score (marginal or upper failing scores) those systems that will be targeted for an assessment. These "struggling" systems will be the focus of a single staff member whose task will be to help identify these system's TMF deficiencies along with defining a reason for their inability to remain in compliance. Once the analysis has been completed, this staff member is responsible for assisting that system to attain and maintain compliance, build TMF, and improve overall system sustainability. A maximum of 6 systems per quarter will be assigned for assessment and regular progress updates will be provided by CDP staff for inclusion in reports to EPA.

DWTRF Funding Distribution including small and disadvantaged systems

Since the DWTRF program began in 1998, eighty (80) loans totaling in excess of $156 million dollars have been disbursed for water system upgrades in West Virginia. To date these funds have been distributed to a range of systems sizes; systems ranging from 58 customers to more than 56,000 have received funds. In FY 2012, the average population served for projects funded was 6,420. It should be noted that the EPA defines a small system as any system <10,000 customers and more than 90% of systems in West Virginia meet this definition.